

DERWENT-ACC-NO: 1990-268968  
DERWENT-WEEK: 199903  
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*NO Sulfur!*

TITLE: Tyre sidewalls with increased stability - consists of  
polydiene rubber  
crosslinked with vulcanising agents which form  
1,2-di:thio-alkane-di:yl bridges

INVENTOR: HORPEL, G; NORDSIEK, K H ; ZERPNER, D ; HOERPEL, G  
; NORDSIEK, K

PATENT-ASSIGNEE: CHEM WERKE HUELS AG [CHEM], HUELS AG [CHEM]

PRIORITY-DATA: 1989DE-3906126 (February 28, 1989) ,  
1989DE-3941085 (December  
13, 1989)

PATENT-FAMILY:

| PUB-NO      |             | PUB-DATE          | LANGUAGE |
|-------------|-------------|-------------------|----------|
| PAGES       | MAIN-IPC    |                   |          |
| DE 3941085  | A           | August 30, 1990   | N/A      |
| 010         | N/A         |                   |          |
| JP 2834585  | B2          | December 9, 1998  | N/A      |
| 022         | C08L 021/00 |                   |          |
| EP 385073   | A           | September 5, 1990 | N/A      |
| 000         | N/A         |                   |          |
| JP 02269749 | A           | November 5, 1990  | N/A      |
| 000         | N/A         |                   |          |
| BR 9000870  | A           | February 13, 1991 | N/A      |
| 000         | N/A         |                   |          |
| EP 432405   | A           | June 19, 1991     | N/A      |
| 000         | N/A         |                   |          |
| JP 04091145 | A           | March 24, 1992    | N/A      |
| 027         | N/A         |                   |          |
| EP 432405   | B1          | April 5, 1995     | G        |
| 013         | B60C 001/00 |                   |          |
| DE 59008849 | G           | May 11, 1995      | N/A      |
| 000         | B60C 001/00 |                   |          |
| EP 385073   | B1          | June 14, 1995     | G        |
| 000         | C08L 021/00 |                   |          |
| ES 2070237  | T3          | June 1, 1995      | N/A      |
| 000         | B60C 001/00 |                   |          |
| DE 59009222 | G           | July 20, 1995     | N/A      |
| 000         | C08L 021/00 |                   |          |
| ES 2072924  | T3          | August 1, 1995    | N/A      |

000 C08L 021/00  
 JP 2792992 B2 September 3, 1998 N/A  
 006 C08L 009/00

DESIGNATED-STATES: AT BE CH DE ES FR GB IT LI LU NL SE AT BE  
 CH DE ES FR GB IT L  
 I LU NL SE AT BE CH DE ES FR GB IT LI LU NL SE AT BE CH DE ES  
 FR GB IT LI LU NL  
 SE

CITED-DOCUMENTS: DE 2265382; NoSR.Pub ; EP 385073

APPLICATION-DATA:

| PUB-NO            | APPL-DESCRIPTOR | APPL-NO        |
|-------------------|-----------------|----------------|
| DE 3941085A       | N/A             | 1989DE-3941085 |
| December 13, 1989 |                 |                |
| JP 2834585B2      | N/A             | 1990JP-0400850 |
| December 7, 1990  |                 |                |
| JP 2834585B2      | Previous Publ.  | JP 4091145     |
| N/A               |                 |                |
| EP 385073A        | N/A             | 1990EP-0100693 |
| January 13, 1990  |                 |                |
| JP 02269749A      | N/A             | 1990JP-0046016 |
| February 28, 1990 |                 |                |
| EP 432405A        | N/A             | 1990EP-0119701 |
| October 15, 1990  |                 |                |
| JP 04091145A      | N/A             | 1990JP-0400850 |
| December 7, 1990  |                 |                |
| EP 432405B1       | N/A             | 1990EP-0119701 |
| October 15, 1990  |                 |                |
| DE 59008849G      | N/A             | 1990DE-0508849 |
| October 15, 1990  |                 |                |
| DE 59008849G      | N/A             | 1990EP-0119701 |
| October 15, 1990  |                 |                |
| DE 59008849G      | Based on        | EP 432405      |
| N/A               |                 |                |
| EP 385073B1       | N/A             | 1990EP-0100693 |
| January 13, 1990  |                 |                |
| ES 2070237T3      | N/A             | 1990EP-0119701 |
| October 15, 1990  |                 |                |
| ES 2070237T3      | Based on        | EP 432405      |
| N/A               |                 |                |
| DE 59009222G      | N/A             | 1990DE-0509222 |
| January 13, 1990  |                 |                |
| DE 59009222G      | N/A             | 1990EP-0100693 |
| January 13, 1990  |                 |                |

|                   |                |                |
|-------------------|----------------|----------------|
| DE 59009222G      | Based on       | EP 385073      |
| N/A               |                |                |
| ES 2072924T3      | N/A            | 1990EP-0100693 |
| January 13, 1990  |                |                |
| ES 2072924T3      | Based on       | EP 385073      |
| N/A               |                |                |
| JP 2792992B2      | N/A            | 1990JP-0046016 |
| February 28, 1990 |                |                |
| JP 2792992B2      | Previous Publ. | JP 2269749     |
| N/A               |                |                |

INT-CL (IPC): B60C001/00; B60C013/00 ; C08K005/37 ;  
C08K005/39 ;  
C08L007/00 ; C08L009/00 ; C08L021/00



ABSTRACTED-PUB-NO: DE 3941085A

BASIC-ABSTRACT: Sidewall (I) for motor vehicle tyres is obtd. by vulcanisation

of mixts. contg. polydiene rubbers (II), vulcanising agents (III) and the usual additives; the novelty is that the network is formed by means of 1,2-dithioalkanediyl bridges with 2-6C atoms.

Pref. (III) is a bis-thiocarbamoyl cpd of formula  $\text{Et}_2\text{N-CS-S-(CH}_2\text{)}_n\text{-S-S-CS-NEt}_2$  (with  $n=2-6$ , pref. 2), or 1,2-bis(N,N-dibenzylthiocarbamoyl disulphide)-ethane.

*Vulcanizing agent for sidewalls*

ADVANTAGE - (I) has excellent flexibility, excellent resistance to ageing and weathering, excellent mechanical and dynamic properties, no discolouration, and high resistance to cracking due to prolonged usage or extreme short-term loading.

ABSTRACTED-PUB-NO: EP 432405B

EQUIVALENT-ABSTRACTS: A process for preparing side-wall vulcanisates for motor vehicle tyres, contg. vulcanising agents and conventional additives in addn. to polydiene rubbers, characterised in that the polydiene rubbers NR, IR, E-SBR, vinyl-SBR, cis-BR and vinyl-BR and their scrap are crosslinked using 1,2-bis(N,N-dibenzylthiocarbamoyl disulphido) ethane.

CHOSEN-DRAWING: Dwg.0/0 Dwg.0/0

TITLE-TERMS:

TYRE SIDEWALL INCREASE STABILISED POLYDIENE RUBBER CROSSLINK  
VULCANISATION

AGENT FORM DI THIO ALKANE DI YL BRIDGE

DERWENT-CLASS: A12 A95 E14 E16 Q11

CPI-CODES: A04-B01E; A08-C04; A12-T01; E10-A04A;

CHEMICAL-CODES:

Chemical Indexing M3 \*01\*

Fragmentation Code

G010 G019 G100 K0 K2 K223 K299 L4 L410 L440

L499 M210 M212 M273 M280 M283 M311 M312 M313 M314

M315 M321 M323 M332 M342 M373 M383 M391 M393 M414

M416 M510 M520 M533 M540 M620 M781 M903 M904 Q132

R038

Markush Compounds

199036-A3901-U

Registry Numbers

1327U 0502U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0122U; 1520U ; 5085U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0009 0037 0218 0183 0226 0231 0306 3159 1059

1060 1095 1987 2020

2198 2199 2207 2217 2301 2302 2312 2315 2333 2493 2589 2597

2599 2605 2614 2615

2620 2622 2623 2625 2628 2634 2635 2657 2826 3300

Multipunch Codes: 014 02& 032 034 04- 040 055 056 075 08- 10-  
117 122 15- 231

247 250 257 27& 299 307 308 310 314 317 341 359 360 392 394

395 41& 473 48- 516

518 541 543 546 551 552 553 554 557 559 560 561 562 563 566

567 57& 572 573 597

598 672 688 724

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1990-116275

Non-CPI Secondary Accession Numbers: N1990-208190

|    | Type | Hits   | Search Text   | DBs                  |
|----|------|--------|---|----------------------|
| 1  | BRS  | 296    | 152/209.5   | USPAT                |
| 2  | BRS  | 242355 | (motorcycle or two) and (base or cap)                                     | EPO; JPO;<br>DERWENT |
| 3  | BRS  | 1789   | ((motorcycle or two) and (base or cap)) and (tire or tyre)                | EPO; JPO;<br>DERWENT |
| 4  | BRS  | 100    | ((motorcycle or two) and (base or cap)) and (tire or tyre) and motorcycle | EPO; JPO;<br>DERWENT |
| 5  | BRS  | 1233   | (cap or base) and motorcycle  | EPO; JPO;<br>DERWENT |
| 6  | BRS  | 1233   | ((cap or base) and motorcycle) not (lead adj base)                        | EPO; JPO;<br>DERWENT |
| 7  | BRS  | 1209   | ((cap or base) and motorcycle) not (bead adj base)                        | EPO; JPO;<br>DERWENT |
| 8  | BRS  | 34     | ((cap or base) and motorcycle) not (bead adj base) and (cap and base)     | EPO; JPO;<br>DERWENT |
| 9  | BRS  | 380    | cap and base and motorcycle   | USPAT                |
| 10 | BRS  | 127    | (cap and base and motorcycle) and (cap same base)                         | USPAT                |
| 11 | BRS  | 16     | (cap and base and motorcycle) and (cap same base) and tire                | USPAT                |
| 12 | BRS  | 4762   | b60c011/00  | EPO; JPO;<br>DERWENT |
| 13 | BRS  | 363    | b60c011/00 and cap and base   | EPO; JPO;<br>DERWENT |
| 14 | BRS  | 0      | spiral and motorcycle   | EPO; JPO;<br>DERWENT |
| 15 | BRS  | 92     | spiral and motorcycle   | EPO; JPO;<br>DERWENT |
| 16 | BRS  | 1      | vulcuren and tire   | USPAT                |
| 17 | BRS  | 0      | vulcuren  | EPO; JPO;<br>DERWENT |
| 18 | BRS  | 3      | carbamoylethio  | USPAT                |
| 19 | BRS  | 0      | carbamoylethio  | EPO; JPO;<br>DERWENT |
| 20 | BRS  | 963    | thiocarbamoyl   | EPO; JPO;<br>DERWENT |
| 21 | BRS  | 6      | thiocarbamoyl and tire  | EPO; JPO;<br>DERWENT |
| 22 | BRS  | 26     | thiocarbamoyl and rubber  | EPO; JPO;<br>DERWENT |
| 23 | BRS  | 20     | (thiocarbamoyl and rubber) not (thiocarbamoyl and tire)                   | EPO; JPO;<br>DERWENT |
| 24 | BRS  | 12     | "5871600"   | USPAT                |

|    | Type | Hits | Search Text | DBs                  |
|----|------|------|-------------|----------------------|
| 25 | BRS  | 13   | "1000968"   | EPO; JPO;<br>DERWENT |
| 26 | BRS  | 2    | "5342900"   | EPO; JPO;<br>DERWENT |
| 27 | BRS  | 12   | "5871600"   | USPAT                |
| 28 | BRS  | 885  | 525/332.7   | USPAT                |
| 29 | BRS  | 631  | 525/352     | USPAT                |
| 30 | BRS  | 163  | 152/517     | USPAT                |
| 31 | BRS  | 326  | 152/525     | USPAT                |